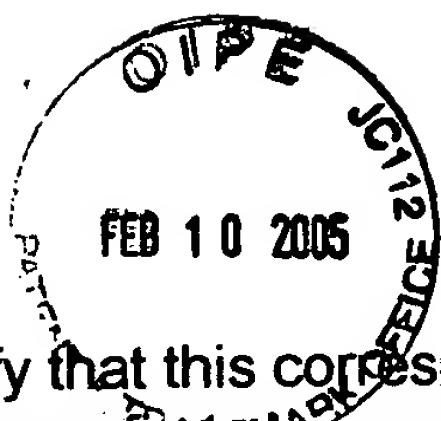


PATENT



AFH

I certify that this correspondence is being deposited with the United States postal service as first class mail in an envelope addressed to the Mail Stop Appeal Brief- Patents Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450 on 7 February 2005 and that my signature herein is as of this date.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Hadala

Serial No. 09/992,610

Confirmation No. 7580

Customer No. 000045021

Filed: 19 November 2001

Title: A Temperature-Sensing Device for Determining the Level of a Fluid

Examiner: Jackson, A.

Art Unit: 2856

Docket: 1181-01

APPEAL BRIEF

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Please enter the following Appeal Brief in response to the Second Final Rejection dated 11 August 2004. Reversal of all rejections is sought. The brief is submitted in triplicate.

REAL PARTY IN INTEREST

The real party in interest is identified in the caption of the brief.

RELATED APPEALS AND INTERFERENCES

There are no related appeals and interferences to the appealed case.

STATUS OF AMENDMENT

There has been no amendment to the claims after the Second Final Official Action.

SUMMARY OF INVENTION

The invention describes a method and an apparatus for effectively determining the

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level of fluid in a pressurized container particularly where the fluids in the container have different compositions and accordingly different heat transfer characteristics.

ISSUES

Are claims 1, 2, and 10 obvious over United States Patent 5,165,569 to Furuhashi et al. (hereinafter the Furuhashi et al. patent) in view of Ogawa United States Patent 5,894,089 (hereinafter the Ogawa patent)?

Are claims 6 and 13 obvious over the Furuhashi et al. patent in view of the Ogawa patent and further in view of United States Patent 4,358,955 to Rait (hereinafter the Rait patent)?

Is claim 8 obvious over Furuhashi et al. in view of Ogawa patent and further in view of United States Patent 4,339,207 to Hof et al (hereinafter the Hof et al patent)?

Is claim 14 obvious over Furuhashi et al. in view of Ogawa and further in view of United States Patent 4,690,299 to Cannon (hereinafter the Cannon patent)?

Are claims 17 and 18 obvious over Furuhashi et al. in view of Ogawa and further in view of United States Patent 6,260,414 to Brown et al. (hereinafter the Brown et al. patent)?

GROUPING OF CLAIMS

Independent claim 1 is separately argued. Dependent claims 2, 10, 13, 14, 17, and 18 depending from claim 1 are separately argued with reasoning set out in the arguments. The submission of the claims in this appeal is for the convenience of the Board and in no manner constitutes a waiver or admission that the remaining claims are not separately patentable.

ARGUMENTS

Independent claim 1 sets forth a method for determining the level of a carbonated fluid in a container having at least two fluids therein. A difficulty arises because as the head space increases the carbonated fluid will release carbon dioxide thereby causing foaming. The foaming is in addition to the second fluid in the container. The foam is

neither purely carbon dioxide nor the first carbonated fluid. The foam is a third phase in the container having its own heat transfer characteristics. Thus, it is difficult if not impossible to determine the level of the first carbonated fluid in the container.

In the claimed method according to claim 1, the first carbonated fluid is at least partially removed from the container while introducing carbon dioxide to the container which reduces the tendency for foaming. Effectively, the claimed method lessens the tendency for the foam to form and interfere with the accurate detection of the level of the first carbonated fluid in the container.

The Furuhashi et al. patent discloses a container for holding beer. Nothing in the Furuhashi et al. patent suggests measuring the level of liquid in a container. The Examiner admits that the Furuhashi et al. patent does not suggest measuring the level of liquid in a container. The Examiner cites the Furuhashi et al. patent solely because it teaches a beer keg. All of the claims in the present appeal are drawn to a *method* of determining the volume of a fluid in a container such as a beer keg. Nothing in the Furuhashi et al. patent recognizes that the out flow of a first fluid (beer) should be done while introducing carbon dioxide thereby suppressing foam formation which would otherwise interfere with the determination of the liquid volume. See the Declaration of John J. Staunton showing that the introduction of gas is necessary to suppress foam formation thereby enabling accurate determination of the liquid volume.

The Examiner counters the Declaration of John J. Staunton stating that the claims do not recite "...recognition of foaming and liquid measurement if foaming occurs)". Of course the appellant's claims do not recite foaming because the claimed method avoids foaming. The appellant is wholly unaware of any requirement that claims state what does not happen. Rather the claims positively set forth a method for the determination of the liquid volume.

Thus, as Furuhashi et al. patent does not provide any reason to introduce carbon dioxide while the first carbonated fluid at least partially removed from the container and while making the volume determination there is no basis for rejecting any of the appellant's claims and every rejection must fall.

The Ogawa patent discloses a liquid level indicator with a transparent vessel for retaining hot water therein and a thermo-sensitive tape (thermo-tape) attached at a side wall of the vessel with the sensing side of the thermo-tape facing the side wall of the vessel. The Ogawa patent does not disclose the out flow of a first fluid (beer) should be done while introducing carbon dioxide thereby suppressing foam formation and thus the Ogawa patent adds nothing to the Furuhashi et al. patent.

It is also observed that the Ogawa patent adheres a tape not to the container containing a large volume of liquid (a beer keg) but rather attaches a tape to a clear water pitcher. It is also noted that to be useful for anything the water pitcher must be full of water. The mere impracticality of using the system of the Ogawa patent should be sufficient grounds to remove the reference.

Claim 10 requires that the method of claim 1 be practiced in a refrigerator. As neither the Ogawa patent nor the Furuhashi et al. patent disclose the out flow of a first fluid (beer) should be done while introducing carbon dioxide thereby suppressing foam formation the references cannot render obvious a process operating in a refrigerated environment.

The Examiner cites the Rait patent against claim 6 as showing a magnetic strip attached to a propane tank. The Rait patent adds nothing to the teachings of the Furuhashi et al. patent and the Ogawa patent. The magnetic strip utilized in claim 6 of the present invention is a part of a method dependent on the introduction of carbon dioxide to the container while removing a first carbonated fluid as the temperature measurement is made. There is no teaching of carbon dioxide in the Rait patent. It would also be a far stretch of the imagination to think that the Rait patent would suggest removing propane while introducing propane while making a temperature measurement.

Thus, the rejection of claim 6 based on the Furuhashi et al. patent in view of the Ogawa patent further in view of Rait patent should be removed.

Claim 13 requires that a water moistened cloth with the temperature of the water moistened cloth is less than 105 ° F be employed in the claimed method. Claim 13 is

rejected based on Furuhashi et al. patent in view of the Ogawa patent further in view of Rait patent. The appellant relies on the previous distinctions over the Furuhashi et al. patent in view of the Ogawa patent.

The Examiner states that the propane tank of the Rait patent is wiped with a dampened cloth having a temperature of less than 105 ° F. However, all the Rait patent states is that the propane tank might be wiped with a dampened cloth and leaves it to the reader's imagination as to the temperature of the dampened cloth. One has no inkling of what temperature the Rait patent actually intends for a dampened cloth and thus claim 13 cannot be obvious from the Rait patent. Thus, the rejection of claim 13 based on the Furuhashi et al. patent in view of the Ogawa patent further in view of the Rait patent should be removed.

Claim 14 recites an operating parameter of volume measurement when the pressure within the container at 70 °F is about 5 pounds per square inch to about 100 pounds per square inch. Please note the importance of maintaining the pressure within the container per the Declaration of John J. Staunton. The Examiner merely speculates that the Cannon patent might operate within the range of 5 pounds per square inch to about 100 pounds per square inch. The Cannon patent actually states in column 5, line 48 et seq. that the range is 60 psi to 120 psi. So even if all other parameters of the claimed method were met by the Furuhashi et al. patent in view of the Ogawa patent, which parameters are not, one might find a pressure inside the range of claim 14 or outside the range of claim 14. The Examiner's rejection of claim 14 sounds in inherency and for inherency absolutely every parameter must be met. Thus, the rejection of claim 14 based on the Furuhashi et al. patent in view of the Ogawa patent further in view of the Cannon patent is erroneous and should be removed.

Claims 17 and 18 are rejected as being obvious over Furuhashi et al. in view of the Ogawa patent and further in view the Brown et al. patent. The Brown et al. patent is cited for disclosing a temperature range at which a volume measurement may be made. The Brown et al. patent never mentions pressure, nor maintaining pressure, nor

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maintaining pressure while a volume measurement is made. How then does the Brown et al. patent add anything to what is disclosed in the Furuhashi et al. in view of the Ogawa patent? Recognition that a certain temperature might be desirable for beer does not in any way cure the defects in any of the references. Thus, the rejection of claims 17 and 18 as being obvious over Furuhashi et al. in view of the Ogawa patent and further in view the Brown et al. patent should be removed.

CONCLUSIONS

THE CLAIMED METHOD PROVIDES ACCURATE VOLUME MEASUREMENTS FOR FLUIDS IN A CONTAINER HAVING AN OUTLET FOR A FIRST CARBONATED FLUID AND AN INLET FOR INTRODUCING CARBON DIOXIDE. AS DEMONSTRATED IN THE DECLARATION OF JOHN J. STAUNTON SUCH MEASUREMENTS MUST BE MADE WHILE INTRODUCING CARBON DIOXIDE IN ORDER TO OBTAIN AN ACCURATE FLUID VOLUME. NONE OF THE CITED REFERENCES HAS RECOGNIZED THE NEED TO MAINTAIN PRESSURE BY INTRODUCING CARBON DIOXIDE WHILE MAKING THE VOLUME MEASUREMENT.

THE EXAMINER HAS FAILED TO MAKE A PRIMA FACIA CASE OF OBVIOUSNESS. ALL OF THE REJECTIONS SHOULD BE REVERSED. THE PENDING CLAIMS SHOULD BE ALLOWED AND SUCH IS REQUESTED.

Should the Board have any questions, such may be directed to the number given on this page.

Respectfully submitted,



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APPENDIX CLAIMS ON APPEAL

Claim 1 A method for determining the level of a carbonated fluid in a container comprising:

obtaining a container having an outlet for a first carbonated fluid and an inlet for introducing carbon dioxide;

said container having a first carbonated fluid region therein;

a first carbonated fluid being present at an original level in said first carbonated fluid region of said container;

said container, for when in use, having said first carbonated fluid at least partially removed from said container while introducing carbon dioxide to said container thereby forming a second carbonated fluid region;

mounting on at least one exterior surface of said container at least one temperature-measuring device in the form of an elongated thin strip;

at least one said temperature-measuring device being located in a region of said container where said second carbonated fluid region is formed by removal of said first carbonated fluid;

initially observing a first temperature in said first carbonated fluid region of said container when said first carbonated fluid is present in said first carbonated fluid region of said container;

subsequently observing a second temperature in said second carbonated fluid region of said container after a portion of said first carbonated fluid has been removed; and,

correlating the difference between said first temperature and said second temperature to the level of said first carbonated fluid in said container.

Claim 2 The method for determining the level of said first fluid in said container according to claim 1 wherein said first carbonated fluid is a liquid and is at least

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partially withdrawn through said outlet between the time of observing said first temperature and said second temperature.

Claim 6 The method for determining the level of said first carbonated fluid in said container according to claim 1 wherein said temperature-measuring device is adhered to an outer surface of said container as a magnetic strip.

Claim 8 The method for determining the level of said first fluid in a container according to claim 1 wherein at least one temperature-measuring device is a eutectic temperature-measuring device.

Claim 10 method for determining the level of said first carbonated fluid in said container according to claim 1 wherein said container is in a refrigerator.

Claim 13 The method for determining the level of said first carbonated fluid in said container according to claim 1 additionally comprising the step of wiping the temperature-measuring device with a water moistened cloth wherein the temperature of the water moistened cloth is less than 105 ° F.

Claim 14 The method for determining the level of said first carbonated fluid in said container according to claim 1 wherein the pressure within said container at 70 °F is about 5 pounds per square inch to about 100 pounds per square inch.

Claim 17 The method for determining the level of said first carbonated fluid in said container according to claim 1 wherein said temperature-measuring device measures temperatures in the range of about 34 ° F to about 94 ° F.

Claim 18 The method for determining the level of said first carbonated fluid in said container according to claim 1 wherein said temperature-measuring device measures temperatures in the range of about 34 ° F to about 86 ° F.